

Rec'd PCT/PTO 28 APR 2005

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

**(19) World Intellectual Property Organization
International Bureau**



(43) International Publication Date
21 May 2004 (21.05.2004)

PCT

(10) International Publication Number
WO 2004/042890 A1

(51) International Patent Classification⁷:
H02M 5/27, F01D 15/10, H02P 9/46

H02J 3/38.

(b) Designated States (*national*): AE, AG, AL, AM, AT (util-

(21) International Application Number: PCT

PCT/CA2003/001708

(22) International Filing Date:
5 November 2003 (05.11.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 2,411,132 5 November 2002 (05.11.2002) CA

(71) Applicant (for all designated States except US):
RAILPOWER TECHNOLOGIES CORP. [CA/CA];
202-50 Fell Avenue, North Vancouver, British Columbia
V7P 3S2 (CA).

(72) Inventor; and
(75) Inventor/Applicant (*for US only*): DONNELLY, Frank,
Wegner [US/CA]; 509 East 6th Street, North Vancouver,
British Columbia V7J 2Z2 (CA).

(74) Agent: **GREEN, Bruce, M.**; Oyen Wiggs Green & Mutala, #480-601 West Cordova Street, Vancouver, British Columbia V6B 1G1 (CA).

D) Designated States (*national*): AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE, EG, ES, FI (utility model), FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK (utility model), SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

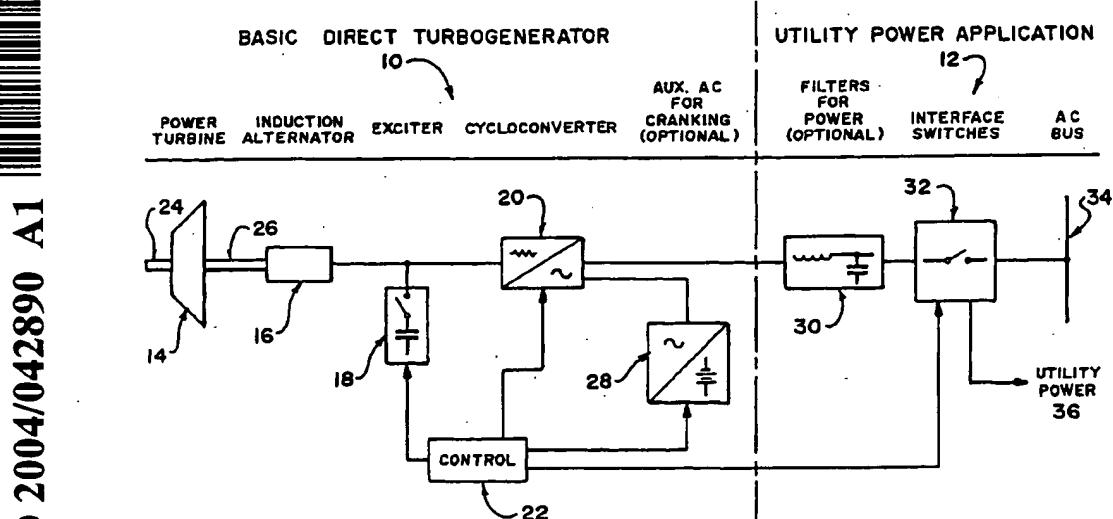
- Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, ML, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
 - before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: DIRECT TURBOGENERATOR



(57) Abstract: A transformerless direct turbogenerator for generating electricity is provided. Since the introduction alternator comprises multiple parallel windings, it allows elimination of the need for a transformer.